

Executive Committee for Highway Safety Intersection Safety Working Group

August 29, 2005 – Mtg. #2
Traffic Control Conference Room, 1:00 p.m.
Meeting Minutes

Committee Members in Attendance:

Terry Hopkins	Brian Mayhew	Lt. Jeff Babb	Cliff Braam
Pate Butler	Sgt. Joe Clifton	Greg Fuller	Steve Hamilton
David Harkey	Cathy Houser	Kevin Lacy	Buddy Murr
David Naylor	Stan Polanis	Dale Privette	Tony Wyatt

Guests:

Joe Geigle attended for Brad Hibbs

Role of Intersection Safety Work Group:

Develop long-term sustainable strategies to decrease intersection related crashes (Signalized and Unsignalized)

Welcome

Thanks for everyone's willingness to participate in this working group. If there is anyone you think should be added in the future, please advise.

General Information

Below is the link to the web page for the Executive Committee for Highway Safety. There are additional links at the top of the web page where you can find additional information on the working groups and other areas of interest.

<http://www.doh.dot.state.nc.us/preconstruct/traffic/echs/>

There are presently two NCHRP 500 guides dealing intersection crashes; one for signalized and one for unsignalized. These can be found at:

Signalized: http://www.trb.org/publications/nchrp/nchrp_rpt_500v12.pdf

Unsignalized: http://www.trb.org/publications/nchrp/nchrp_rpt_500v5.pdf

Brian Mayhew is currently working on a web-resource page that will display all research and informational links for this working group. We will also have minutes of meetings, copies of presentations from our meetings, and work group membership listing at that link. As soon as it is put together, you will be notified by e-mail. If you have any great resource links that should be used on this web-resource page, please notify Brian.

Winston-Salem's Low Cost Model for Treating Intersections

Stan Polanis provided a power point presentation that outlined some of their low cost strategies that they had implemented in Winston-Salem to treat crash patterns. They have established a library of completed before and after studies. They have a commitment to have 200 intersections under study every year. They emphasize simplicity with the strategies, and they have shown true benefits to low-cost improvements. This presentation was a great introduction for our discussions.

Review of other State's Efforts: Joe Geigle

Joe Geigle of FHWA shared some information nationally:

- Ed Rice, formerly with Florida DOT, is now the lead person in FHWA for Intersection Safety. (He has agreed to speak at our meeting on Nov. 2nd.)
- Many training courses from FHWA on signalized and unsignalized intersection safety have been taught in NC recently. This is a positive result of being an opportunity state.
- Joe has heard that NY DOT is requiring roundabouts to be considered as a treatment before any new signal is approved.

Parking Lot Items

Group Discussion of the following parking lot items had good discussion however, no specific action items are brought forth at this time. We will continue discussion of possible strategies from these items in the future.

Flashing Yellow Arrow

Greg Fuller mentioned that North Carolina has installed two intersections with a Flashing Yellow Ball, and this is currently experimental in the MUTCD and he expects approval in the next edition. He says that it gives more flexibility to the designers. There is one installed in Raleigh at the entrance to Wake Medical Hospital on New Bern Avenue, and one is in Charlotte. Three are planned for intersections in Fayetteville and one in Wilmington. The Safety Evaluation Group is monitoring crash data for these locations.

The web-site on this treatment is shown below:

Here is the four-section protected-permitted web link.

<http://projects.kittelton.com/pplt/>

12" Signal Head

Stan Polanis mentioned that in some of our larger intersections, the 12" signal head can get lost. Fuller stated that LED has more intensity than the bulbs used years ago. Also, there has been some concerns with vertical clearance and installations being able to hold the additional weight. Stan suggested that the size of the signal heads may need to be reviewed at some point in the future because over time there could be a loss of brightness with the LED heads.

Parking Lot Items (Continued)

Late Night Flash

Pate mentioned the Late Night Flash study that requires a justification to keep the signal in a flashing mode. Plans have been revised to require that signals operate 24/7 unless an engineering study can justify that the intersection should be in late-night flash.

Crash Data Review as a part of Signal Maintenance.

Stan Polanis mentioned that crash data should be reviewed as part of the regular signal maintenance programs. Brian mentioned that our HSIP program may help to address some of that issue. Stan mentioned that there is a tendency to put the signals out there, do preventive maintenance (change bulbs, check cabinet, change timing) without a conscious effort to review crash data information. Kevin Lacy mentioned that maybe we could choose a pilot Division to take this on.

Getting Safety Information to Public

DMV License Renewal requires everyone pass a Sign Test. David Naylor mentioned that this test should also include test on signal displays. Examples to incorporate could be protected/permitted phasing; 5-signal heads; flashing red on Late Night Flash signal; Buddy Murr mentioned his past difficulty to make changes in the Driver's Handbook. Someone mentioned that Wayne Hurder of DMV said that the book is based on a national model. Pate Butler asked if we could do a specialized insert or flyer that is NC specific. Will we be missing opportunities for education of public with the convenience of on-line renewal?

Cumulative Impact of Development Distributed along a Network away from a Developer's Site

Concern expressed about possible cumulative impacts from development, especially on rural intersections. The subsequent increase in volume can lead to crash pattern changes resulting in additional cost to the community.

Specific Discussion and Action Items

Median Cross-over Guidelines

Brian Mayhew introduced illustration of crashes that can be reduced with intersection designs that limit amount of conflict points. Discussion around the table whether our Median Cross-over Guidelines were strong enough to require serious consideration of alternative designs. The link for this policy is shown below:

www.ncdot.org/doh/preconstruct/traffic/congestion/cm/docs/Mcguidelines.pdf

ACTION : Everyone was asked to review the median cross-over guidelines to see if verbiage needed strengthening.

Specific Discussion and Action Items (Continued)

Automated Enforcement (Red Light Cameras)

There was a lot of discussion on this item, however no formal evaluation has been completed, so results are not defensible at this point. We discussed getting legislation set up to allow for any signal to use red light camera technology when justified, regardless of municipal boundaries. General consensus was reached that a strategy should be drafted to pursue legislation allowing red light cameras as an option when justified for any signalized intersection in North Carolina. However, many significant issues were identified that would need to be resolved. Additional effort will be needed to identify obstacles/issues and to flesh them out. A small group of folks have been identified to develop this strategy for blanket legislation.

Although a strength in the red light camera programs is an evidence of a reduction in angle collisions, we spent more time discussing concerns such as an evidence of increased rear-end crashes. Also, it is difficult for Division forces to deal with the towns that want to participate that don't have an engineering staff; Division forces have to do the inspections, and would like the cameras installed at intersections that have a demonstrated need. Concern that Greenville never turned their cameras on – what is the public perception of this program? Is it accurate?

ACTION ITEM: **Bryan Staley** (in our Regional Traffic Engineers office in Winston-Salem) will lead the effort of drafting a strategy for developing blanket legislation for cities, towns, and Divisions/DOT to participate with the red light camera program. **David Naylor, Greg Fuller, and Dale Privette** offered to assist. Dale also mentioned that Ms. Clement Gibson of the City of Charlotte would be able to provide some guidance due to her history with their red light cameras.

Advance Street Name Signing

There was general consensus from the group on drafting a strategy for clearly identifying in advance cross streets at intersections. It could decrease erratic movements near intersections. The group was impressed with the quality of signing that the Town of Cary has undergone, and noted that several other cities were also using advance signing.

ACTION ITEM: **Tony and Dale Privette** will develop a strategy for signing street names in advance.

Intersection Safety Work Group Action Items:

Name	Item
Group	Notify Brian or Terry if there are any others that should be involved with this working group.
Group	Read through NCHRP 500 Guides Volumes 5 and 12 (see links above) if you haven't already. Be prepared to discuss at the next meeting: 1) If any of these are being done, 2) Which strategies need emphasizing. 3) Which ones work/don't work. 4) What strategies are missing.
Group	Read information related to the following topics and provide any ideas back to the working group: Winston-Salem's Low Cost Model for Treating Intersections Flashing Yellow Arrow NCHRP Studies
Group	Review Median Crossover Guidelines to see if guidance is strong enough; Is the message out to all our employees to look at alternative designs initially instead of traffic signal?
Bryan Staley	Lead initiative to draft Strategy for blanket legislation for red light cameras for statewide implementation. Tony Wyatt, Greg Fuller, David Naylor, and Dale Privette agreed to assist.
Group	Read attached red light camera articles and be prepared to provide any comments on draft Strategy from Bryan Staley
Tony Wyatt	Lead initiative to draft Strategy for Advance Street Name Signing prior to intersections. Dale Privette agreed to assist.
Kevin Lacy	Brief Chief Varnedoe on some of our discussions on the Division impact on the Red Light Cameras
Group	Provide strategy ideas for addressing crashes resulting from motorists running stop signs.

Thanks again for your participation on this working group. Each of you brings expertise to the group in different disciplines. We will make an effort to document all ideas raised in these meetings in a "Parking Lot" in case we get an opportunity to build on it at a later time.

Please notify Terry Hopkins if there is an error in these minutes.

NEXT MEETING: Wednesday, November 2, 2005 (1:00 – 3:00)
Traffic Control Conference Room